

DIVAKOV, A., kandidat tekhnicheskikh nauk; KONAREVSKIY, A., inzhener;
PYKHALOV, S., inzhener; SHAPOVALENKO, M., inzhener.

Refrigerated car with automatic temperature regulation. Mias.ind.
SSSR 25 no.6:39-41 '54. (MIRA 8:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut myasnoy pro-
myshlennosti (for Divakov, Konarevskiy and Pykhalov).
(Refrigerator cars)

DIYAKOV, N. V., Engineer

"Theoretical and Experimental Investigation of the Problems Connected
With Gear Shifting During Acceleration of an Automobile." Sub 4 Dec 47,
Moscow Automotive Mechanics Inst

Dissertations presented for degrees in science and engineering in Moscow
in 1947

SO: Sum No. 457, 18 Apr 55

DIYAKOV, M. V.

Diagrams for a new electromagnetic coupling. Avt. trakt. prom., No 8, 1952.

1. DIVAKOV, N. V.
 2. USSR (600)
 4. Automobiles - Transmission Devices
 7. Differential axles of automobiles. Avt. trakt. prom. no. 12, 1952.
9. Monthly List of Russian Accessions, Library of Congress, May 1953, Unclassified.

DIVAKOW, N. : FALKIEWICH, B.

"Control of the Technical Capacity of a Tested Automobile. Tr.
from the Russian", P. 235. (TECHNICKA PRACA, Vol. 6, No. 4, April
1954, Bratislava, Czechoslovakia)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4,
No. 1, Jan. 1955, Uncl.

DIVAKOV, N.V.

FAL'KEVICH, B.S., doktor tekhnicheskikh nauk; **DIVAKOV, N.V.**, kandidat tekhnicheskikh nauk; **SHLIPPE, I.S.**, kandidat tekhnicheskikh nauk, redaktor; **VELIKANOV, D.P.**, kandidat tekhnicheskikh nauk, retsenzent; **POLYAKOV, V.N.**, inzhener, retsenzent; **YEGORKINA, L.I.**, redaktor; **MODEL', B.I.**, tekhnicheskiiy redaktor

[Methods of testing automobiles and their mechanisms] Metody ispytaniia avtomobilia i ego mekhanizamov. No.7. [Power and efficiency of automobiles] Dinamichnost' i ekonomichnost' avtomobilia. Moskva Gos. nauchno-tekhn. izd-vo mashinostroitel'noi lit-ry. 1955. 158 p. (MLRA 9:2)

1. Russia (1923- U.S.S.R.) Ministerstvo avtomobil'nogo, traktor-nogo i sel'skokhoziaistvennogo mashinostroyeniya.
(Automobiles--Testing)

LAPIDUS, Viktor Iosifovich; KHAL'FAN, Yuriy Arkad'yevich; DIVAKOV, N.B.,
red.; ZUYEVA, N.K., tekhn. red.

[Automobile automatic transmission] Avtomobil'nye avtomaticheskie
korobki peredach. Moskva, Nauchno-tekhn. izd-vo avtotransp. lit-ry,
1958. 117 p. (MIRA 11:7)

(Automobiles---Transmission devices)

ABELEVICH, Lev Abramovich,; DIVAKOV, N.V.,red.; MAL'KOVA, N.V.,tekhn. red.

[Equipment for testing motor vehicle parts in repair shops]
Oborudovanie dlia ispytaniia agregatov na avtoremontnykh zavodakh.
Moskva, Nauchno-tekhn. izd-vo avtotransp. lit-ry, 1958. 157 p.

(MIRA 11:12)

(Automobiles--Apparatus and supplies--Testing)

RUBETS, Dmitriy Alekseyevich, kand. tekhn. nauk; DIVAKOV, N.V., red.;
STEPANOV, V.M., red. izd-va; GALAKTIONOVA, Ye.N., tekhn. red.
NIKOLAYEVA, L.N., tekhn. red.

[Fuel efficiency of motor vehicles] Toplivnaya ekonomichnost'
avtomobilia. Moskva, Avtotransizdat, 1960. 55 p.

(MIRA 15:12)

(Motor vehicles--Fuel consumption)

DIVAKOV, N.V.

Criteria for evaluating automobile differentials. Avt.prom. no.6:
7-11 Je '60. (MIRA 13'8)

1. Moskovskiy avtomekhanicheskiy institut.
(Automobiles--Transmission devices)

SAMOL', Ivan Ivanovich, kand. tekhn. nauk; GOL'DBLAT, Il'ya Isaakovich,
kand. tekhn. nauk; DIVAKOV, N.V., red.; NIKOLAYEVA, L.N., tekhn.
red.

[Motortrucks operated with liquified gas; manual for drivers] Gazo-
ballonnye avtomobili; posobie shoferu. Moskva, Nauchno-tekhn. izd-
vo M-va avtomobil'nogo transp. i shosseinykh dorog RSFSR, 1961. 141 p.
(MIRA 14:8)

(Motortrucks--Motors (Compressed gas))

DIVAKOV, N.V., kand.tekhn.nauk; LEVIN, I.A., kand.tekhn.nauk

Efficient drive for the medium and rearmost axles of the 6x6 motortruck.
Avt.prom. 28 no.8:18-21 Ag '62. (MIRA 16:3)

1. Moskovskiy avtomekhanicheskiy institut.
(Motortrucks--Axles)

DIVAKOV, N.V.; YAKOVLEV, N.A.; KLANNIKOV, V.M., red.; KOPTEVSKIY, D.Ya.,
red.izd-ya; YEZHOVA, L.L., tekhn. red.

[Theory of motor vehicles] Teoriia avtomobilia. Moskva,
Vysshiaia shkola, 1962. 298 p. (MIRA 16:4)
(Motor vehicles)

DIVAKOV, P. D.

In the center of contamination. Voen. znan. 34 no.7:24-25 J1 '58.
(MIRA 11:9)

(First aid in illness and injury) (Chemical warfare)

BABKIN, I.A.; VELYUGO, V.M.; ~~DIVAKOV, P.D.~~; ZAPOL'SKIY, G.N.; KIPRIYAN, K.M.; KISELEV, M.G.; KORABLEV, M.D.; SILKOV, G.A.; SMORODIN, I.Ya.; KANEVSKAYA, M.D., red.; GERASIMOVA, V.N., tekhn.red.

[Manual for training and testing for a first-class rating in the organization "Ready for Antiaircraft Defense."] Uchebno-metodicheskoe posobie po provedeniiu trenirovok i priemu norm "Gotov k PVO" 1-i stupeni. Moskva, Izd-vo DOSAAF, 1959. 110 p.

(MIRA 12:5)

1. Vsesoyuznoye dobrovol'noye obshchestvo sodeystviya armii, aviatsii i flotu.

(Civil defense)

DIVAKOVA, Ye. K.

DIVAKOVA, Ye. K., Cand Tech Sci --(diss) "Foamsilicate and its physico-technical properties as material for supporting constructions." Mos, 1958. 28 pp with illust (Min of Higher Education USSR. Mos Order of Labor Red Banner Eng Constr Inst im V.V.Kuybyshev) 120 copies (KL, 20-58, 97)

SKIPSKIY, P.S., dots., kand. tekhn.nauk; SIMAKOV, I.M., inzh.;
DIYAKOVA, Ye.K., assisten kand. tekhn. nauk; RUBIN,
M.G., assistant; VARLAMOVA, V.A., assistant

[Laboratory work on the strength of materials] Laboratornye
raboty po soprotivleniiu materialov. Gor'kii, 1962. 100 p.
___ [Log of laboratory work on the strength of materials]
Zhurnal laboratornykh rabot po soprotivleniiu materialov.
Gor'kii, 1962. 33 p. (MIRA 16:5)

1. Gorki. Gor'kovskiy inzhenerno-stroitel'nyy institut. Ka-
fedra stroitel'noy mekhaniki.
(Strength of materials)

DIVALD, Gyorgy [translator]

The relationship between the British railways and the railways
of the continent. Vasut 13 no.9:16-17 S '63.

SIMIC, B.S.; SIMIC, A.; MARKOVIC, R.; KOVACEVIC, M.; RAKOVIC, V.;
PUTNIK, D.; DIVANOVIC, B.; JOCIC, V.; ANICIC, M.

Diet, blood lipids and other indices of cardiovascular diseases
in 3 regions of Serbia. Acta med. Jugosl. 18 no.3:185-203 '64.

1. Savezni zavod za zdravstvenu zastitu i Higijenski institut
Medicinskog fakulteta u Beogradu.

HERGESIC, B.; FERBER, E.; MAVER, H.; PANTAZIJEVIC, D.; DIVANOVIC, B.; TODOROVIC, P.; VRACARIC, B.; SIMIC, B.; BOGOJEVSKI, D.; KLINC, L.; RAMZIN, S.; PETROVIC, D.; DAJA, A.; MILIC-KRIVODOLJANIN, B.; PRIBICEVIC, S. (Beograd); ZEREMSKI, D. (Beograd); VAJIC, V.

Review of periodicals; nutrition. Bul sc Young 9 no.4/5:147-148
Ag-O '64.

ՀԱՅԿԱՍՏԱՆԻ ՀԱՆՐԱՊԵՏՈՒԹՅԱՆ

ՄՈՋԻՏԻՅԱՆ, Ա.Լ.; ԱՔՐԻԿՅԱՆ, Վ.Օ.; ՕԳԱՆԻՏՅԱՆ, Ա.Ն.; ԴԻՎԱՆՅԱՆ, Ն.Մ.

Investigation of the synthesis of benzimidazole derivatives. Dokl.
AN Arm.SSR 18 no.4:111-118 '54. (MLRA 8:3)

1. Deystvitel'nyy chlen Akademii nauk Armyanskoy SSR (for
Mojizhoyan). 2.Laboratoriya farmatsevticheskoy khimii Akademii nauk
Armyanskoy SSR.
(Benzimidazole)

DIVANYAN N.M.

MNDZHOYAN, A.L.; AFRIKYAN, V.G.; DOKHIKYAN, A.A.; TATEVOSYAN, G.T.;
DIVANYAN, N.M.

~~and the following information was obtained from the~~
Methyl ester of 5-benzylfuran-2-carboxylic acid. Sint.geterotsikh.
soed. no.1:22-23 '56. (MIRA 10:11)
(Furoic acid)

DIVANYAN, N. M.

MNDZHOYAN, A.L.; DIVANYAN, N.M.; MNDZHOYAN, O.L.; BAGDASARYAN, E.P.

Methyl ester of 5-butylmercaptomethylfuran-2-carboxylic acid.

Sint.geterotsikl.soed. no.1:26-27 '56. (MIRA 10:11)

(Furoic acid)

MNDZHOYAN, O.L.; BABIYAN, N.A.; TATEVOSYAN, G.T.; DIVANYAN, N.M.

Propylfurylcarbinol. Sint.geterotsikl.soed. no.1:44-46 '56.

(Furfuryl alcohol)

(MIRA 10:11)

DIVANYAN, V. M.
TATEVOSYAN, G.T.; DIVANYAN, N.M.

Furfurol. Sint.geterotsikl.noed. no.1:62-65 '56. (MIRA 10:11)
(Furaldehyde)

DIVANYAN, N.M.

AFRIKYAN, V.G.; DOKHIKYAN, A.A.; TATEVOSYAN, G.T.; DIVANYAN, N.M.

5-benzylfuran-2-carboxylic acid chloride. Sint.geterotsikl.soed.
no.1:66-67 '56. (MIRA 10:11)

(Furoic acid)

(Chlorides)

MNDZHOYAN, A.L.; DOVLATYAN, V.V.; DIVANYAN, N.M.

Investigations in the field of dibasic carboxylic acid derivatives.
Part 14. Amino esters of p-phenylenedicarboxylic and p-phenylene-
acidic acids and their quaternary salts. Dokl. AN Arm. SSR 22 no. 2:
65-69 '56. (MLRA 9:7)

1. Daystvitel'nyy chlen AN Armyanskoy SSR (for Mndzhoyan). 2. Laboratoriya farmatsevticheskoy khimii Akademii nauk Armyanskoy SSR.
(Fatty acids) (Curarelike substances)

MNDZHOYAN, A.L.; DIVANYAN, H.M.

5-furfurylmercaptomethyl-2-furoic acid. Sint. geterotsikl. soed.
no. 2:76-79 '57. (MIRA 11:7)
(Furoic acid)

DIVANYAN, N. M.

MNDZHOYAN, A.L.; TATEVOSYAN, G.T.; DIVANYAN, N.M.

Investigating the field of derivatives of substituted acetic acids.
Report No.10: Dialkylaminoethyl esters of β -alkylmercaptoethyl-
benzylacetic acid. Izv. AN Arm. SSR Ser. khim. nauk 10 no.4:267-
276 '57. (MIRA 10:12)

1. Institut tonkoy organicheskoy khimii AN ArmSSR.
(Acetic acid)

MNDZHOYAN, A.L., akademik; ZATEVOSYAN, G.T.; AGBALYAN, S.G.; DIVANYAN, N.M.

Research in the field of furan derivatives. Report No.16. Dokl. AN
Arm. SSR 25 no.4:207-211 '57. (MIRA 11:2)

1. Institut tonkoy organicheskoy khimii AN ArmSSR.
(Furan)

MNDZHOYAN, A.L.; DIVANYAN, N.M.

5-butylmercaptomethylfurfuryl alcohol. Sint. geterotsikl. soed.
no.3:19-21 '58 (MIRA 13:3)
(Furfuryl alcohol)

MNDZHOYAN, A.L., akademik; AFRIKYAN, V.G.; TATEVOSYAN, G.T.; AGBALYAN, S.G.;
GRIGORYAN, M.T.; DIVANYAN, N.M.; BADALYAN, V.Ye.; MARKARYAN, H.A.

Investigation in the field of furan derivatives. Report No.21.
Dokl. AN Arm.SSR.27 no.5:305-314 '58. (MIRA 12:5)

1. Institut tonkoy organicheskoy khimii AN ArmSSR. 2. AN ArmSSR
(for Mndzhoyan).

(Furan)

MNDZHOYAN, A.L.; DIVANYAN, N.M.

N- β -hydroxyethyl)isoindoline. Sint. geterotsikl. soed. no.4:61-64
'59. (MIRA 13:11)

(Isoindolineethanol)

MNDZHOYAN, A.L.; DIVANYAN, N.M.; AMIRKHANYAN, M.M.; TIMOSHENKO, V.A.

Isoindoline. Report No.1. Izv.AN Arm.SSR.Khim.nauki 15 no.1:95-100
'62. (MIRA 15:7)

1. Institut tonkoy organicheskoy khimii AN Armyanskoy SSR.
(Isoindoline)

MNDZHOYAN, A.L.; DIVANYAN, N.M.

Derivatives of furan. Part 31: Hydrazides and substituted hydrazides
of 5-alkylmercaptomethyl-2-furancarboxylic acids. Izv. AN Arm.SSR.
Khim.nauki 17 no.4:431-435 '64. (MIRA 18:6)

1. Institut tonkoy organicheskoy khimii AN ArmSSR.

DIVARI, N. B.

"The Northern Lights of 22 September 1946, and Its Influence on the Glow of the Night Sky,"
~~No 6~~, pp 85-88.

(Meteorologiya i Gidrologiya, No 6 Nov/Dec 1947)

SO: U-3218, 3 Apr 1953

DIVARI, N. B.

"Determination of the Trajectory of Movement of Sikhote-Alinskiy Meteorite on the Basis of the Testimony of Witnesses" Astron. Zhur. 25, No 1, 1948.

Kazakh AS; Inst. of Astr. and Phys.

DIVARI, N.B.

24743. DIVARI, N.B. Nekotorye Dannye Otnositel'no Obstoyatel'stv Padeniya Sikhote-
Alinskogo Meteorita. Vestnik Akad. Nauk Kazakh. Ser, 1949, No. 3, S. 44-52---
Rezyume Na Kazakh Yaz.

G. Mekhanika. Gidronekhanika, Aeromekhanika

SO: Letopis' No. 33, 1949

DIVARI, N. B.

Fotometricheskiy analiz letnego poslesumerechnogo svecheniya (Photometric Analysis of the Summer After-twilight Luminosity). Akademiya Nauk SSSR. Meteoritika, 1949, v. 5, p. 71-76, diags., 6 refs.

DIVARI, N. B.

"The Brightness of the Sky at the Beginning and End of Night", Iz Ak Nauk SSSR, Ser Geograf i Geofiz, Vol. 13, No. 3, pp 242-246, 1949.

Mbr., AS Kazak., Inst. Astron. and Physics, Alma-Ata

DIVARI, N. B.

"Photometric Observations of Anti-Luminescence" Astron. Zhur. 26 No 6, 1949.

Inst. of Astro. and Phys., AS of Kazakh SSR

DIVARI, N. B.

Fotometricheskiye nablyudeniya protovosiyaniya (Photometric Observations of Counter glow).
Astronomicheskiy zhurnal, 1949, v. 26, no. 6, p. 355-362, tables, diags., 8 refs.

QBL.A47. v. 26

LIST AND INDEX		PROCESSES AND PROPERTIES INDEX	
9991. On the pressure of solar radiation upon atoms of various gases. N. B. DYVARI, <i>Astron. J. Acad. Sci., USSR</i>, 27 (No. 6) 331 (1950) In Russian. English abstr. in <i>Astron. News Letter</i> (Harvard) No. 55, 3 (Feb. 15, 1951). The ratio $(1 + \mu)$ of radiation pressure acceleration to solar gravitational acceleration is calculated for H, He, Na and Ca⁺, a value of 0.1 for residual intensity of the appropriate solar line being assumed if an accurate value was not known. The largest value of $(1 + \mu)$ was 238 for Hα. Estimates of $(1 + \mu)$ in the earth's upper atmosphere show that normal radiation pressure will not produce a gaseous tail to the earth. Apparent values of $(1 + \mu)$ up to 2.125 are observed in comet's tails. M. W. OVERTON		523.72 : 525.7	
ASTM-SLA METALLURGICAL LITERATURE CLASSIFICATION			
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REGION 5		REGION 6	
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DIVARI, N. B.

USSR/Astronomy - Night Sky

May/Jun 51

"Stellar Component of Night Sky Glow," N. B. Divari, Astrophys Inst, Acad Sci Kazakh SSR

"Astron Zhur" Vol XXVIII, No 3, pp 163-171

Observations for subject investigation were performed in vicinity of Alma-Ata in 1946 and on Lake Issyk-Kul in 1949. Used photometers designed by Acad V. G. Fesenkov. Atm and zodiacal components, taken from tables by Fesenkov, were deducted from total sky glow. Cosmic component of glow was found equiv to 956 stars of 1st magnitude. Divari was assisted by Acad Fesenkov.

189T2

DIVARI, N. B.

PA 39418

USSR/Astronomy - Aberration

Nov/Dec 51

"Problem of Dependence of Aberration Constant on Spectral Class of Star," N. B. Divari, Inst of Astr and Phys, Acad Sci Kazakh SSR

"Astron Zhur" Vol XXVIII, No 6, pp 518-527

Studies subject dependence curve using observations and articles by foreign observatories. Attempts to find reasons for this phenomenon in the difference of light's velocity relative to spectral class and wave length. Nevertheless results cannot be considered very accurate. This problem is important from astrophys standpoint.

194T8

DIVANI, N.B.

Daily variation in brightness of the night sky. Izv. AN Kazakh. SSR no. 99:3-15
'51. (MLRA 6:10)
(Stars)

USSR/Geophysics - Night Sky

Jan/Feb 52

"Deep Twilights Near the Horizon," N. B. Divari,
Astrophys Inst, Acad Sci Kazakh SSR

"Iz Ak Nauk SSSR, Ser Geofiz" No 1, pp 79-84

The presence of half-twilight glow, previously pointed out by Acad V. G. Fesekov, is proved by means of a lens-free photometer of his construction. The incongruity of foreign literature, considering this phenomenon as part of ordinary twilight, is proved. A hypothesis, stating that the half-twilight glow is directly connected with emissive lines of the night sky, is suggested. Submitted 19 Jun 51.

205T46

DIVARI, N. B.

Alma-Ata Province - Meteorites

Bolide of July 19, 1950, observed in Kazakhstan. Meteoritika No. 10, 1952.

9. Monthly List of Russian Accessions, Library of Congress, June, 1953, Incl.

DIVARIJ, N. B.

USSR/Astronomy - Zodiacal Light Jan/Feb 52

"Photometric Investigation of Zodiacal Light,"
N. B. Divari, Inst of Astrophys, Acad Sci Kazakh
SSR

"Astron Zhur" Vol XXIX, No 1, pp 49-56

Observed in fall 1946 on Kamenskiy platform near
Alma-Ata and in summer 1947 in Sredniy Talgar
Canyon in Tien-Shan mountains, altitude 3,200 m.
Used Fesenkov's photometer. Concluded that north-
ern and eastern zodiacal lights have 2 components:
virtual zodiacal light and some residual light of
atm origin of twilight nature. Received 10 Mar 51.

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Mar 77

DIVARI, N. B.

USSR/Geophysics - Night Sky

"Photometric Observations of the Night Sky, " N. B. Divari, Odessa Polytech Inst

^{#2,}
Priroda, No 3, pp 88,89

Discusses results of observations of the night sky conducted in the mountains of
Zailiyskiy Ala-Uau near Lake Issyk-kul in Sary-Ishik Otrau desert. Mentions Acad V. G.
Fesenkov's special photometric which was used in the observations.

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¹Hop, E. R. (trans.), The earth's exterior atmosphere and the counter-glow. The counter-glow as related to modern geophysical theories. With seven recent Russian papers collected and translated by E. R. Hop. 2nd ed. Ottawa, Defence Research Board, Defence Scientific Information Service, July 1954. xviii+51 p. illus., refs. Canada. Defence Research Board, T. 65 R. July 1954. Contents: Hop, Earl R., The counter-glow as related to modern geophysical theories. Astapovich, I. S., Problem of the counter glow. Fesenkov, V. G., Report of address. Fesenkov, V. G., On the gaseous tail of the earth. Divari, N. B., Photometric observations of the counter-glow. Fesenkov, V. G., Gaseous tail of the earth [different article]. Karimov, M. G., The nature of the counter-glow. Divari, N. B., The pressure of solar radiation on the atoms of certain gases. DWB. First edition, July 1952, under title: Earth's exterior atmosphere and the counter-glow: recent Russian papers collected and translated. Contained first five of above cited Russian papers. 38 p. DLC--The first edition (1952) contained the complete translations of the 1st 5 papers cited above; accompanied by an 8 page translator's commentary (with schematic diagrams) discussing and summarizing the theory and observational evidence as presented in these papers. FESENKOV, the long time czar of Soviet astrophysics, at first refused to admit the possibility of a gaseous "tail"

(OVER)

HOPE E. R.

to the earth's atmosphere, but later (1950) recognized the phenomenon which was discovered by ASTROVICH before 1944 (and reported in *Prirada* early in 1950) on the basis of observations of the counter glow made under the extremely good observing conditions of Turkmenistan in Central Asia in 1942-44, and confirmed by photometric observations made in 1946-49 by several observers. The astronomical, geometrical and spectrophotometric as well as theoretical evidence is discussed thoroughly in these articles and is amply illustrated. The second (1954) edition contains translations of the two added papers (KARIMOV and DIVARI) on the nature of the Counter glow and the Pressure of Solar Radiation on Atomic Gases, respectively. The discussion is simplified to 26 pages, involving a discussion of the root of the tail, the divergence of the tail, the Bennett-Hulbert theory and the Radzievski (1953) theory. Corrections in translations, critical notes on the various theories, and a good bibliography (26 refs.) are included in the foreword (the originals of several of these articles are abstracted separately).
Subject Heading: 1. Gaseous tail of earth's atmosphere 2. Exosphere 3. Counter glow.—
 M.R.

DIVARI, N. V.

Dissertation: "Investigation of Zodiacal Light on the Basis of Photometric Observations of the Night Sky." Cand Phys-Math Sci, Moscow
Order of Lenin State U imeni M. V. Lomonosov, 19 May 54. Vechernyaya Moskva, Moscow, 10 May 54.

SO: SUM 284, 26 Nov 1954

DIVARI, N.B.

Effect of fluorescence quenching on the luminosity of the
night sky. Izv. Astrofiz.Inst. AN Kazakh.SSR 1 no.1/2:
176-178 '55. (MIRA 9:10)

(Night sky)

DIVARI, N.B.

New method for separating the luminosity components of the night sky. Izv. Astrofiz. Inst. AN Kazakh SSR 1 no.1/2:179-187 '55. (MLBA 9:10)

(Night sky)

DIVARI, N. B.

"Electrons in Interplanetary Space from Observations of Zodiacal Light" Voprosy K Kosmogonii, Moscow, Vol. 4, 1955, pp. 127-135

Translation ATIC-242122
F-TS-8853/III
568474

DIVARI, N. B.

USSR/ Astronomy -- Zodiacal light

Card 1/1 Pub. 8 - 10/13

Authors : Divari, N. B.

Title : Variations in the brightness of zodiacal light

Periodical : Astron. zhur. 32/1, 79-89, Jan-Feb 1955

Abstract : An analysis of visual photometric observations of the zodiacal light is presented. The analysis was conducted to determine the nature and the causes of the so-called excessive light observed in the zodiacal light at the horizon. Nine references: 3 USA, 1 German, and 5 USSR (1937-1953). Graphs; tables.

Institution : The Odessa Polytechnical Institute

Submitted : April 5, 1954

Translator: 568456

FESENKOV, V.G.; DIVARI, N.B.

The problem of zodiacal light in connection with the International Geophysical Year. Astron.zhur.33 no.3:391-403 '56. (MIRA 9:10)

1.Astrofizicheskiy institut Akademii nauk KazSSR.
(Zodiacal light)

DIVARI, N. B.

"Some Results of Daylight Electrophotometry of the Bright Sky"
by G. Sh. Livshits, Izv. Astrofiz. in-ta AN KazSSR, No 2, 1956,
pp 131-143 (from Referativnyy Zhurnal -- Astronomiya, Geodeziya,
No 3, Mar 57, Abstract No 1962 by N. B. Divari)

Results of brightness measurements in the almucantar of the sun, carried out by the writer at the Mountain Astrophysical Observatory of the Academy of Sciences Kazakh SSR from 1951 to 1953 are described. A daylight electrophotometer with a selenium photocell and a stopping layer was used for readings. The instrument contained glass filters for wave lengths of 455, 546, and 636 mu. The brightness, the diffusion index and the mirror-like reflection from the winter snow blanket were investigated. (U)

Sum. 1360

DIVARI, N. B.

"Dependence of the Terrestrial Atmospheric Transparency Coefficient on Wave Length," by T. P. Toropova, Izv. Astrofiz. in-ta AN KazSSR, No 2, 1956, pp 154-158 (from Referativnyy Zhurnal -- Astronomiya, Geodeziya, No 3, Mar 57, Abstract No 1963 by N. B. Divari).

Monochromatic transparency coefficients of the terrestrial atmosphere within wave lengths of 410 to 7010 mu were measured. The observations were carried out in the fall of 1952 and 1954 at the Astrophysical Observatory of the Kazakh SSR by means of a solar Spectrograph with glass optics silver sulfite photocell with a stopping layer as radiation receiver. The resulting monochromatic transparency coefficients agreed within 1 to 2% with those obtained by N. I. Ovchinnikov by means of an aureole photometer with filters.
(U)

Sum. 1360

DIVARI, N.B.

~~_____~~
Polarization properties of the twilight sky [with summary in
German]. Izv.Astrofiz.inst, AN Kazakh.SSR 5 no.7:89-109
'57. (MIRA 10:7)
(Night sky) (Polarization (Light))

DIVARI, N.B.

Polarization of light in the zenith of a twilight sky. Dokl. AN
SSSR 112 no.2:217-220 Ja '57. (MLRA 10:4)

1. Astrofizicheskiy institut Akademii nauk KazSSR. Predstavleno akademikom V. G. Pesenkovym.
(Polarization (Light)) (Sky, Color of)

DIVAKI, N.B.

TABLE 1 BOOK EVALUATION 807/500 501/500-15

Valmire nauk SSSR. Knizhet po meteoritam

Meteorites; abornik staty, 77-16 (Meteorites; Collection of articles, 1978, 1979. 209 p. Krasa slyb inostran. Knizhet, 1979. 1,500 copies printed.

Ed.: V.G. Fesenko, A. A. Kozlovskiy; Druzya Dnep. Dni. Knizhet, 1979. 1,500 copies printed. Knizhet, 1979. 1,500 copies printed.

REMARKS: This publication is intended for meteorite collectors, physicists, and other specialists concerned with meteorites.

CONTENTS: This collection contains 16 articles, 15 of which are reviews, and 13 abstracts of papers presented at the 1978-1979 Symposium on Meteorites and Meteorite Showers. The articles deal with the origin and evolution of meteorites, their physical properties, their chemical composition, their mineralogy, and their role in the study of the earth and the solar system. The articles are written by leading experts in the field of meteorites, and are of high scientific value. The collection is a valuable reference work for meteorite collectors and for scientists interested in the study of meteorites.

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3(0)

AUTHOR: Divari, N. B.

SOV/20-122-5-13/56

TITLE: On the Variations of the Color of the Twilight Sky
(Ob izmeneniyakh tsveta sumerechnogo neba)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 122, Nr 5,
pp 795 - 798 (USSR)

ABSTRACT: In order to explain the causes of the variation of the color of the twilight sky, the authors carried out photoelectric measurements of the distribution of the light energy of the twilight sky in the zenith and compared the results obtained with theoretical calculations. Investigations were carried out on the Kamensk-plateau ($\varphi = 43.2^\circ$ North, $\lambda = 76^\circ 56'$ East, $H = 1450$ m above sea level) in the time from October 10 to November 1, 1956 by means of a photoelectric photometer constructed by V.I. Morozov (Ref 1). The seven interference filters used for these measurements were centered to the wavelengths 367; 369; 405; 437; 554; 580; and 593 m μ . The brightness of the twilight

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On the Variations of the Color of the Twilight Sky

SOV/20-122-5-13/56

sky was calculated only with consideration of the scattering of the first order for a spherical atmosphere without taking diffraction into account. A formula for the calculation of the brightness I of the sky is written down. A comparison of calculated and observed values of brightness gave the following result: The intensity of the observed twilight luminescence is rather near the intensities of the scattered scattering of the first order for all wavelengths of the visible spectral range only if the sun is from 0 to 6.5° below the horizon. For lower positions of the sun the observed intensities are by several orders of magnitude greater than the observed intensities of scattering of the first order. If the sun is below the horizon by more than 8.5° , scattering of the first order plays a comparatively minor part in the total flux of the celestial radiation in the zenith. This applies to all regions of the visible spectral range. The color of the twilight sky can be characterized by the color temperature. However, the energy distribution observed cannot be represented

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On the Variations of the Color of the Twilight Sky

SOV/20-122-5-13/56

by only a single value of the temperature within the spectral range. Therefore, the spectral range investigated was subdivided into two ranges 370-440 mμ and 440-600 mμ). The mean values of the color temperatures for these two ranges are compiled in a table. For the variations of the color of the twilight sky mainly the spectral range of 440-600 mμ is probably responsible, i.e. the range of the Shapuyi-absorption band of ozone. The energy distribution observed depends to a considerable extent on the absorption by ozone in the Shapuyi-band. Also the ratio of radiation intensities in 2 spectral ranges may serve as a characteristic of the color of the twilight sky. Twilight in the zenith probably ends when the sun is 8-9° below the horizon. The range of 9-14° cannot be looked upon as a period of transition from twilight to night. The observed character of the energy distribution in the spectrum of the nocturnal sky depends not only on the existing ozone, but also on the general character of the absorption

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On the Variations of the Color of the Twilight Sky SOV/20-122-5-13/56

of light in the atmosphere of the earth. There are 4 figures, 1 table, and 12 references, 6 of which are Soviet.

ASSOCIATION: Astrofizicheskiy Institut Akademii nauk KazSSR (Astrophysics Institute of the Academy of Sciences KazSSR)

PRESENTED: June 2, 1958, by V.G.Fosenkov, Academician

SUBMITTED: May 28, 1958

Card 4/4

3(1) Divari, N.B.

PHASE I BOOK EXPLOITATION

SOV/2464

Akademiya nauk SSSR. Komitet po meteoritam

Sikhote-Alinskiy zheleznyy meteoritnyy dozhd', tom 1 (Sikhote-Alin' Iron Meteorite Shower, Vol 1) Moscow, Izd-vo AN SSSR, 1959. 363 p. 1,200 copies printed.

Resp. Ed.: V. G. Fesenkov; Deputy Resp. Ed.: Ye. L. Krinov;
Ed. of Publishing House: I. Ye. Rakhlin; Tech. Ed.: G. N. Shevchenko.

PURPOSE: This book is intended for earth scientists and astronomers interested in meteorite phenomena.

COVERAGE: The collection of articles is the first of three volumes devoted to a study of the Sikhote-Alin' iron meteorite shower which fell on February 12, 1947. Individual articles discuss the location of the fall, the types of craters formed by the impact, and the mineral composition of the meteorite fragments. Information presented in this series, including eyewitness reports, was obtained by members of the AN SSSR

Card 1/3

Sikhote-Alin' Iron Meteorite Shower, Vol 1

SOV/2464

Committee on Meteorites during its four expeditions made between 1947-50. Photographs accompany the text. No personalities are mentioned. No references are given.

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Sikhote-Alin' Iron Meteorite Shower, Vol 1

SOV/2464

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AVAILABLE: Library of Congress

MM/jb
10-21-59

Card 3/3

3(1)

AUTHORS: Divari, N.B., Asaad, A.S.

SOV/33-36-2-16/27

TITLE: On the Emission of the Green Line of the Night Sky in
Zodiacal Light

PERIODICAL: Astronomicheskii zhurnal, 1959, Vol 36, Nr 2, pp 327-333 (USSR)

ABSTRACT: During the stay of the expedition of the Academy of Sciences of the USSR in Egypt (autumn 1957) the authors investigated the green line [O I] λ 5577 of oxygen in the region of the zodiacal light. They used a photoelectric photometer with an amplifier of V.I. Moroz. [Ref 1] produced in the laboratories of the Astrophysical Institute of the Academy of Sciences of the Kaz SSR. It is shown that there is no enhancement of the mentioned green line of the night sky in zodiacal light.

The investigations of M.G. Karimov, G.A. Tikhov, Z.V. Karyagina, K.K. Chuvayev are mentioned. There are 12 references, 8 of which are Soviet, 2 American, 1 Japanese, and 1 German.

SUBMITTED: August 9, 1958

Card 1/1

85916

3,5000

S/169/60/000/010/011/013
A005/A001

Translation from: Referativnyy zhurnal, Geofizika, 1960, No. 10, p. 210, # 13207

AUTHOR: Divari, N.B.,

TITLE: On the Color of the Twilight Sky^{IV} in the Zenith

PERIODICAL: Izv. Astrofiz. in-ta. AN KazSSR, 1959 (1960), Vol. 9, pp. 96-107
(English summary)

TEXT: Results are presented from photoelectric observations of the energy distribution in the twilight sky spectrum in the zenith. The observations were carried out in autumn 1956 on the Kamenskiy plateau near Alma-Ata (43.2°N) with a photoelectric photometer with interference filters centered at the following wavelengths: 367, 369, 405, 437, 554, 580 and 590 mμ. The observation results are presented in tables which show the absolute values of the brightness of the twilight sky in the zenith for the wavelengths mentioned for the Sun submerged by 0 - 18°. Moreover, tables are presented of the computed brightness values of the twilight sky for dispersion of first order with allowance for the light absorption by the atmospheric ozone at its various content. It is shown that the observed

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A005/A001

On the Color of the Twilight Sky in the Zenith

distribution of intensity of the twilight sky radiation is characterized by a wide minimum in the yellow-green section of the spectrum, which is caused by absorption of the ^vsolar radiation by ozone in the Chapuis band. The changes in the intensity ratio of the twilight radiation in the blue and red rays are characterized by the existence of a maximum at Sun submergences of nearly 10° . These fluctuations of the blue-red ratio are caused by absorption of the solar radiation by ozone in the Chapuis band as well as by the difference in the altitudes of the so-called effective twilight rays for different wavelengths. A table of the altitudes of the effective twilight rays is added for nine wavelengths and Sun submergences from $0 - 18^{\circ}$. The comparison of the observed brightnesses with the theoretically calculated brightnesses shows that the dispersion of first order causes, at Sun submergences from 0 to $6^{\circ}.5$, the observed brightness of the twilight sky in the zenith. At greater Sun submergences, the observed brightness exceeds considerably the brightness caused by the dispersion of first order.

N.B. Divari

Translator's note: This is the full translation of the original Russian abstract.

Card 2/2

41184
S/169/62/000/009/111/120
D228/D307

3.5150

AUTHORS: Divari, N. B. and Asaad, A. S.

TITLE: Photoelectric zodiacal light observations

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 9, 1962, 18, abstract 9G139 (Tr. Astrofiz. in-ta, AN KazSSR, 1961, 2, 52-122)

TEXT: The observations were made by an expedition of the Astrofizicheskiy institut AN KazSSR (Astrophysics Institute, AS KazSSR) in the United Arab Republic from October 22 to November 22, 1957, by means of a photoelectric photometer. The photometer's optical part was attached immovably on a vertical tube. Any part of the sky was sighted by means of a rotary head, consisting of two quite internally-reflecting prisms. A ФЭУ-19 (FEU-19) photomultiplier served as the radiation receiver. Observations were made with λ -557 and 552 Å interference filters (half-width of 80 - 85 Å) and with ЖС-18 (ZhS-18) ($\lambda_{\text{max}} = 541 \text{ m}\mu$) and СС-4 (SS-4) ($\lambda_{\text{max}} = 414 \text{ m}\mu$) glass filters. The results of observations for the almancantars

Card 1/2

Photoelectric zodiacal light ...

S/169/62/000/009/111/120
D228/D307

$z = 80, 70, \text{ and } 60^\circ$ over 10° in azimuth and also along the zodiacal light axis are given in tabular form. Besides the direct values of the zodiacal light brightness I_z , the authors cite extra-atmospheric values of I , obtained from the formula:

$$I = I_z(P + 0.02)^{-\sec z}$$

Here P is the atmospheric transparency factor for the filter in question. According to V. G. Fesenkov, a 0.2 increase of P allows the influence of the diffusion of light of the neighboring zodiacal light sections to be taken into account. [Abstracter's note: Complete translation.]

Card 2/2

DIVARI, N.B.

Distribution of the brightness of twilight sky in the solar
vertical. Trudy Astrofiz. inst. AN Kazakh. SSR 3:188-210 '62.
* (MIRA 16:11)

DIVARI, N.B.

Evaluating the velocity of the fall of some specimen of the
Sikhote-Alin meteorite shower. Meteoritika no.22:31-41 '62.
(MIRA 15:8)

(Sikhote-Alin Range--Meteorites)

·DIVARI, N.B.

Photometric analysis of twilight based on sky brightness measurements
in the vertical of the sun. Geomag. i aer. 2 no.4:720-731 JI-Ag '62.
(MIRA 15:10)

1. Odesskiy politekhnicheskiy institut.
(Twilight) (Photometry)

S/913/62/003/000/027/033
D-05/D301

AUTHOR: Divari, N.E.

TITLE: Brightness distribution of twilight sky at solar vertical

SOURCE: Akademiya nauk Kazakhskoy SSR. Astrofizicheskiy institut. Trudy v. 3. 1962. Rasseyaniye i polarizatsiya sveta v zemnoy atmosfere; materialy Soveshchaniya po rasseyaniyu i polarizatsii sveta v atmosfere. 188 - 210

TEXT: The author measured the twilight brightness at the solar vertical in the spring of 1959. The observations were conducted at the Kamensk-Plateau Observatory (1450 m above sea level), by means of a photoelectric photometer designed by V.I. Moroz. Two spectral regions were investigated that were singled out by two interference filters (at wavelength of 371 and 575 millimicron respectively). The time-dependence curves of log brightness were plotted for each of the filters. The sky brightness,

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Brightness distribution ...

S/913/62/003/000/027/033
D405/D301

corresponding to particular depths of the Sun below the horizon, was determined from these curves by graphic interpolation. From the brightness graphs it is evident that in the blue spectral region ($371 \text{ m}\mu$) the curves are characterized by a flat minimum near the zenith and two maxima near the horizon (for any depression of the Sun). In the green spectral region ($575 \text{ m}\mu$), the brightness curves have roughly the same character as in the blue region, but the maxima are nearer the horizon. The brightness varies to a different degree along the vertical and depends on the depression; the brightness of the green radiation decreases much faster from horizon to zenith than that of the blue radiation. From a table listing the ratio of the brightness at a zenith distance of 70° in the direction of the Sun to the brightness at a zenith distance of 10° opposite to the Sun (J_{70}/J_{10}) it is evident that in all the cases this ratio for the green radiation exceeds by several times the corresponding ratio for the blue radiation. It was found that ozone has a considerable influence on the absolute values of the brightness of primary twilight radiation at all the points of the solar vertical; the

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Brightness distribution ...

S/913/62/003/000/027/033
D405/D301

brightness decreases appreciably with increasing ozone concentration. At the beginning of the twilight, the intensity of the secondary twilight radiation is proportional to the intensity of the primary radiation; as the Sun dips lower under the horizon, the secondary twilight becomes stronger than the primary and is no longer proportional to it. According to the author's observations it can be assumed that the height of the scattering atmosphere is about 50 km., whereas theoretical methods yield a value of 80 km.; an explanation for this discrepancy is suggested. The curves J_{371}/J_{575} (the intensity ratio) are plotted and their variation as a function of zenith distance is examined. The ratio has minimum values for large zenith distances. There are 14 figures and 17 tables.

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DIVARI, N.B.; TROFIMOVA, L.S.

Airglow analysis based on brightnesses observed at two points
on the solar vertical circle. Geomag. i aer. 3 no.4:657-665
Jl-Ag '63. (MIRA 16:11)

1. Odesskiy politekhnicheskii institut.

DIVARI, N.B.

Dependence of the twilight sky brightness on the moon's age. Geomag.
i aer. 3 no.6:1136-1138 N-D '63. (MIRA 16:12)

1. Odesskiy politekhnicheskii institut.

L 11108-63

EWI(1)/FCC(W)/ES(V)/BDS

AFPTC/ASD/ESD-3/APOC/SSD

Pe-4/

Pi-4/Po-4/Pq-4 GW

ACCESSION NR: AP3001244

S/0033/63/040/003/0514/0522

AUTHOR: Divari, N. B.; Kry*lova, S. N.

TITLE: Photoelectric observations of zodiacal light at a high-altitude station

SOURCE: Astronomicheskiy zhurnal, v. 40, no. 3, 1963, 514-522

TOPIC TAGS: zodiacal light, atmospheric optics, photometry

ABSTRACT: Observations of zodiacal light made with violet and green filters at the Tien-Shan station (3000 m above sea level) by means of a specially designed photoelectric photometer are reviewed. The following formula was used to determine extraterrestrial brightness:

$$I_{obs} = A(z) + L(b)p^{sec \lambda} + R(b, z, p) + ZL(\beta, \lambda)(p + 0.02)^{sec \lambda}$$

where $A(z)$ is the atmospheric component of night airglow; $L(b)$ is the stellar component, i.e., the sky brightness caused by stars and not resolved by the photometer; $R(b, z, p)$ is the light of these stars scattered by the terrestrial atmosphere; and p is the coefficient of atmospheric transparency in the spectral region used. Increasing the coefficient of transparency by 0.02 for zodiacal

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ACCESSION NR: AP3001244

light accounts for scattering by the terrestrial atmosphere. Brightness variations along and perpendicular to the ecliptic are given in the form of functional dependences. The mean isophotes in the violet and green are seen to correspond to the conical configuration of the zodiacal light. The axis of the zodiacal light is close to the ecliptic but somewhat north of it in the case of small elongations of the isophotal peaks and south of it in the case of large elongations. The color index of zodiacal light in the B-V system was found to be 0.47 ± 0.03 . The color of zodiacal light is believed to be similar to that of the sun. Since no systematic decrease of the color index with increased ecliptical latitude is observed, it is concluded that zodiacal twilight exerts very little influence on the brightness of the zodiacal light. The color index along the almucantar is found to be independent of azimuth. Orig. art. has: 9 tables, 5 figures, and 3 formulas.

ASSOCIATION: Odesskiy politekhnicheskii institut (Odessa Polytechnic Institute)

SUBMITTED: 11Apr62

DATE ACQ: 01Jul63

ENCL: 00

SUB CODE: AS

NO REF SOV: 006

OTHER: 006

Card

14/904
2/2

ACCESSION NR: AP3004328

S/0033/63/040/004/0717/0718

AUTHOR: Divari, N. B.

TITLE: The influence of the moon on the brightness of zodiacal light

SOURCE: Astronomicheskii zhurnal, v. 40, no. 4, 1963, 717-718

TOPIC TAGS: zodiacal light, age of moon, solar radiation scattering,
dust particles

ABSTRACT: Dependence of the brightness of zodiacal light on the age of the moon has been detected. It shows that a considerable fraction, if not all, of the brightness of the cones of zodiacal light is due to scattering of solar radiation by dust particles which are close to the earth. Orig. art. has: 3 tables and 2 figures.

ASSOCIATION: Odesskiy politekhnicheskii institut (Odessa Polytechnic Institute)

SUBMITTED: 04Mar63

DATE ACQ. 20Aug63

ENCL: 00

SUB CODE: 00
Card 1/1

NO REF SOV: 002

OTHER: 000

L 52752-65 ENT(m)/EWG(v)/FCG/EEC(t) Pe-3/P1-4 GS/GW

ACCESSION NR: AT5011171

UR/0000/64/000/0171/0175

AUTHOR: Divari, N. B.

TITLE: Investigation of the optical properties of the atmosphere by the twilight method

SOURCE: Mezhvedomstvennoye soveshchaniye po aktinometrii i optike atmosfery.
5th, Moscow, 1963. Aktinometriya i optika atmosfery (Actinometry and atmospheric optics); trudy soveshchaniya. Moscow, Izd-vo Nauka, 1964, 171-175

TOPIC TAGS: upper atmosphere, twilight, moon, atmospheric dust, atmospheric optics

ABSTRACT: The twilight method can be used successfully to study the optical properties of dust in the upper layers of the earth's atmosphere. The phase of the moon has been found to have a clear relationship to the brightness of the twilight sky. This paper reports a detailed investigation of this effect based on measurements of sky brightness in the zenith made at two Czechoslovak observatories. Five filters were used and brightnesses were grouped separately for these for two-day intervals of the phase of the moon. At the first observatory, the results confirmed the existence of a dependence between the brightness of the twilight sky and phase of the moon. This held true for all solar depressions except for the deepest. There was a clearly expressed maximum whose

Cord 1/2

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ACCESSION NR: AT5011171

position was displaced somewhat with a change in solar depression. However, this dependence was not observed at the second observatory. A further analysis of these two sets of observations, considering primary twilight for large solar depressions to be caused by the scattering of solar radiation on solid particles of dust, indicates that the density distribution of solid particles at heights of about 200 km is not directly related to the density of gases in the earth's atmosphere. This can occur if the dust particles at these heights are not in a suspended state, gradually descending to the earth's surface, but are moving around the earth in orbits near its surface. In this case, the relationship between the brightness of the twilight sky and the phase of the moon can be attributed to the influence of the moon on the distribution of the orbits of these dust particles. However, further detailed experiments are required to confirm this conclusion. Orig. art. has: 1 formula, 1 figure and 2 tables.

ASSOCIATION: Odeskyy politekhnicheskyy institut (Odessa Polytechnic Institute)

SUBMITTED: 25Nov64

ENCL: 00

SUB CODE: OP, ES

NO REF SOV: 007

OTHER: 005

am
Card 2/2

L 9982-65 EWT(d)/EWT(1)/EEC(x)-2/ENG(v)/FCC/EEC-4/EEC(t) Ho-4/Pg-5/Pq-1/
Pg-4/Pt-10/Pi-4/Pk-4/Pi-4 SSD/AFIL/ESD(t) GH

ACCESSION NR: AP4046285

S/0203/64/004/005/0881/0815

AUTHOR: Divari, N. B.

TITLE: Polarization measurements of zodiacal light

SOURCE: Geomagnetizm i aeronomiya, v. 4, no. 5, 1984, 881-886

TOPIC TAGS: zodiacal light, zodiacal light polarization, upper atmosphere, atmospheric dust.

ABSTRACT: Measurements of the intensity and degree of polarization of zodiacal light were made in September-October, 1955 at the Kamenskoye Plate Observatory (43° 2N, 76° 0E, elevation above sea level 1,450m). Electrophotometer measurements were made with the polaroid in three positions, a method proposed by V. G. Fesenkov (Astron. zh., 1936, 12, No. 4, 309). Two glass filters were used in the observations, green and blue, with effective wavelengths of the transmission band at 470 and 520 millimicrons, respectively. Effective wavelengths were computed for the solar spectrum using the formula

$$I_{\text{eff}} = \frac{\int \lambda S(\lambda) F(\lambda) P(\lambda) G(\lambda) d\lambda}{\int S(\lambda) F(\lambda) P(\lambda) G(\lambda) d\lambda}$$

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L 9982-65

ACCESSION NR: AP4046285

where $E(\lambda)$, $F(\lambda)$, $P(\lambda)$ and $G(\lambda)$ are the energy distribution in the solar spectrum, relative spectral sensitivity of the FEU-19 photomultiplier, transmission of the filter and transmission of the glass, respectively. Observations were made each 10° in azimuth along the almucantars $z = 40, 50, 60, 70$ and 80° . The ecliptic and galactic coordinates of the observed points of the sky were computed by a graphic method with an accuracy of 1° . The absolute brightness of the zodiacal light was determined in blue and green rays in both polarized and general light, and the brightness distribution along the ecliptic and perpendicular to it was approximated by an analytical expression. The color of the zodiacal light was found to be independent of solar elongation. Observations averaged for all nights of observations and for all points of the cone of zodiacal light in the zone $-10^\circ \leq \beta \leq 10^\circ$ and $35^\circ \leq \lambda \leq 60^\circ$ gave the following values of $2.5 \log (I_{\text{green}}/I_{\text{blue}})$: for general light 0.14 ± 0.03 and for polarized light 0.09 ± 0.04 . (For the sun these values are equal to zero.) It was found that the color of the zodiacal light is virtually identical in polarized and in general light. This suggests that the same particles are responsible for the polarization of zodiacal light as for nonpolarized radiation. The data show no systematic difference between the degree of polarization in blue and green rays. The contradictory findings of other authors are reviewed and it is noted that this confusion makes it difficult to devise a model of the dust cloud responsible for the zodiacal light.

Card 2/3

L 9982-65

ACCESSION NR: AP4046285

Orig. art. has: 2 formulas, 5 figures and 3 tables.

ASSOCIATION: Odesskiy politekhnicheskii institut (Odessa Polytechnical Institute)

SUBMITTED: 16Dec69

ENCL: 00

SUB CODE: AA, ES

NO REF SOV: 009

OTHER: 000

Card 3/3

L 8929-65 EWT(1)/EWG(v)/FCC/EHA(r)/EEC-1/EEC(t) Po-4/Pe-5/Pq-4/Pas-2/PT-10/
 ACCESSION NR: AP4046286 Pl-4 GW S/0203/64/004/005/0886/0891

AUTHOR: Divari, N. B.

TITLE: On the dust concentration in the upper layers of the
 terrestrial atmosphere

SOURCE: Geomagnetizm i aeronomiya, v. 4, no. 5, 1964, 886-891

TOPIC TAGS: twilight, twilight brightness, solar vertical, zenithal
 distance, interferential filter, nightglow, dust concentration, sky
 brightness, rocket counter

ABSTRACT: Measurements of twilight brightness were carried out at
 two points of the solar vertical at the zenithal distance of 70° by
 means of interferential filters for the wavelength $\lambda = 0.57\text{-}\mu$ which
 are not permeable to nightglow. The brightness of primary twilight
 was divided into two components, one of which was caused by gases
 and the other, by dust. The ratio of the dust component to the gas
 component was equal to one in the height interval from 40 to 70 km.
 From 80 km, the ratio increases and it becomes approximately 50 at

Card 1/2

L 8929-65

ACCESSION NR: AP4044286

130 km. The dust concentration at these heights is expressed as an exponential function, the use of which yielded a dust concentration at 80 km of 10^{-3} , which was near the results obtained from measurements of sky brightness. Direct particle measurements at 100 km by rockets found particles with radii up to 0.01 μ , and their concentration was 10^6 times less than that obtained from twilight brightness measurements. This discrepancy may be explained by the inability of rocket and satellite counters to catch the small dust particles which greatly disperse the solar light and cause the twilight phenomenon. Orig. art. has: 1 figure, 3 tables, and 13 formulas.

ASSOCIATION: Odesskiy politekhnicheskii institut (Odessa Polytechnic Institute)

SUBMITTED: 03Feb64

ATD PRESS: 3112

ENCL: 00

SUB CODE: AA

NO REF SOV: 005

OTHER: 007

Card 2/2

L 12837-65 EWT(1)/FUC/SSG(v)/EPA(1) Po-1/Fe-5/Pt-4/Pt-10/Pt-14 AFWL/SSD/
AEDG(a)/ESD(1)/SSD(b) GW

ACCESSION NR: AP4046180

S/0053/64/084/001/0075/0098

AUTHOR: Divari, N. B.

TITLE: Zodiacal light

SOURCE: Uspekhi fizicheskikh nauk, v. 84, no. 1, 1964, 75-98

TOPIC TAGS: zodiacal light, solar particle, interplanetary dust,
solar corona

ABSTRACT: The author cites recent experimental evidence that the old hypothesis that zodiacal light is due to scattering of solar radiation by particles of interplanetary dust is not the only possible explanation of the known properties of zodiacal light, and that some facts even contradict this hypothesis. It is emphasized that in none of the existing measurements has the brightness of the zodiacal light been reliably separated from the background of the night sky, and that other factors affecting the absorption and scat-

Cord 1/3

L 12837-55

ACCESSION NR: AP4045180

tering of the zodiacal light in the lower layers of the atmosphere have not been adequately accounted for. In particular, most papers ignore factors such as polarization, color and other features of zodiacal light. None of the theories is based on all the obtained information and capable of explaining all the observed facts. The author therefore reviews critically all the presently available data on the following topics: 1. Observations of the position of the zodiacal light. 2. Brightness of zodiacal light along the ecliptic. 3. Variation of the brightness perpendicular to the ecliptic. 4. Spectrum of zodiacal light. 5. Color of zodiacal light. 6. Polarization of zodiacal light. 7. Zodiacal light and solar corona. 8. Brightness fluctuations of zodiacal light. 9. Electronic component of zodiacal light. 10. Location of substance producing the zodiacal light. The data obtained by many researchers on the foregoing subjects are compared and the major results tabulated. The alternate hypothesis proposed by the author is that the zodiacal light is produced by a cloud dust surrounding the earth, citing as

Card 2/3

L 12837-65,

ACCESSION NR: AP4046180

evidence in its favor the observed variation of the zodiacal light with the phases of the moon and results of some rocket and satellite measurements. Orig. art. has: 5 figures, 2 formulas, and 7 tables.

ASSOCIATION: None

SUBMITTED: 00

ENCL: 00

SUB CODE: AA

NR REF SOV: 028

OTHER: 058

Card 3/3

523.59

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39
1

AUTHOR: Divari, N. B.

TITLE: Contribution of the circumterrestrial dust cloud to the brightness of zodiacal light and the F-corona

SOURCE: Astronomicheskiy zhurnal, v. 42, no. 3, 1965, 645-652

TOPIC TAGS: zodiacal light, circumterrestrial dust cloud, dust cloud, corona, heliocentric dust cloud, geophysical rocket

ABSTRACT: Analysis of five different models shows that the circumterrestrial dust cloud makes a significant contribution of at least 10% to the observed brightness of zodiacal light cones. In fact, the brightness curve along the ecliptic suggests that the zodiacal light may be attributed entirely to the near-earth dust cloud. A review of rocket and satellite measurements of the dust particles indicates that the mean concentration of particles of the circumterrestrial cloud having a radius exceeding 10 μ considerably exceeds the concentration of the heliocentric dust cloud at a distance of 1 astronomical unit from the sun. The method used to determine the extent to which the particles of the near-earth cloud affect the brightness of the zodiacal light and the F-corona consisted in computing

Card 1/2

ASSOCIATION: Odesskiy politekhnicheskii institut (Odessa Polytechnic Institut)

SUBMITTED: 21 May 64

ENCL: 00

SUB CODE: AM, EB

NO REF BOV: 002

OTHER: 005

ATD PRESS: 4017

Card 2/2 718

I 64118-65 ENT(1)/ENG(v)/FCC/ENAL(d)/ENC-1 GW

ACCESSION NR: AP5020582

UR/0033/65/042/004/081/0822
523 59

AUTHOR: Diveri, N. B.; Komarnitskaya, N. I.

27
25

ABSTRACT: On the basis of photoelectric observations of zodiacal light conducted from 1955 to 1958 on the Kamensky Plateau (1450 m above sea level), the mountain station of the State Astronomical Institute imeni Shternberg (3000 m), and in Egypt, the position of the axis of the zodiacal light relative to the ecliptic has been analyzed. All of the above observations show good agreement and point out a slight negative inclination of the axis of the zodiacal light to the ecliptic. The mean ecliptical latitude of the points of maximum brightness, according to observations in green light, is -0.2 ± 0.8 , indicating that the axis essentially coincides with the ecliptic. No relation was found between the position of the axis and the latitude of the point of observations. However, a dependence was found between the po-

Card 1/2

L 64118-65

ACCESSION NR: AP5020682

2
position of the axis and the ecliptical latitude of the moon. The coefficient of correlation between these two factors, based on night observations over a period of 4 years, is 0.76. This is in accord with the dependence, detected by the author in an earlier work, of the brightness of the zodiacal light on the age of the moon. The matter that helps to generate the zodiacal

ASSOCIATION:	Odesskiy politekhnicheskii institut (Odessa Polytechnic Institute)		
SUBMITTED:	14Sep64	ENCL:	00
NO REF SOV:	007	OTHER:	009
		SUB CODE:	AA, ES
		ATD PRESS:	4065
Cord	2/2		

L 2981-66	EWT(1)/FCC	GV
ACCESSION NR:	AP5025626	UR/0033/65/042/005/1090/1103
		525.75
AUTHOR:	Divari, N. B.; Plotnikova, L. I.	33
	44,55	B
TITLE:	Computed brightness of the twilight sky	
SOURCE:	Astronomicheskii zhurnal, v. 42, no. 5, 1965, 1090-1103	
	44,55	